

### **REMARKS / ARGUMENTS**

The claims are 1-2, 16-25 and 28-30. Claims 26 and 27, which the Examiner indicated contain allowable subject matter, have been rewritten in independent form substantially as new claims 29 and 30 respectively. Accordingly, claims 26 and 27 have been canceled. The remaining claims 1, 16-25 and 28 have been amended to improve their form. Reconsideration is expressly requested.

As an initial matter, Applicant notes that the Office Action Summary indicates that claims 4-15 are withdrawn from consideration which is believed to be in error and that the Examiner simply meant to indicate that these claims had been previously canceled. The Office Action Summary also indicates that the specification was objected to which is also believed to be in error as no such objection was set forth in the Office Action.

Claims 1-28 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite because of the use of the phrase "like". In response, Applicant has changed the term "strip-like body of vegetation" to "--vegetation sheet--", has removed the term

"felt-like" from claim 1, and has amended the remaining claims in view of these changes to claim 1. It is respectfully submitted that all currently pending claims comply with 35 U.S.C. 112, second paragraph, and Applicant respectfully requests that the rejection on that basis be withdrawn.

The Examiner indicated that claims 26 and 27 contain allowable subject matter; however, claims 1, 18 and 25 were rejected under 35 U.S.C. 102(b) as being anticipated by *Drefahl U.S. Patent No. 4,534,142*, claim 28 was rejected under 35 U.S.C. 102(b) as being anticipated by *Drefahl*, and claims 2, 3, and 16-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Drefahl*. Essentially, the Examiner's position was that *Drefahl* teaches the strip-like body of vegetation and process recited in the rejected claims, except for the specifics of the material characteristics such as material type, weight and number and size of holes formed therein, which were considered within the skill of the art.

In response, Applicant has canceled claims 26 and 27, which the Examiner indicated contain allowable subject matter, in favor of new independent claims 29 and 30, which it is respectfully submitted are now in condition for allowance. In addition,

Applicant has amended the remaining claims to improve their form and respectfully traverses the Examiner's rejection for the following reasons.

As set forth in claim 1 and 28 as amended, Applicant's invention provides a vegetation sheet and a process for the manufacture of a vegetation sheet used to cover roofs with thin layers of vegetation. The **vegetation sheet 10** includes a **structural matting 12** that is disposed on at least one **underlay or base layer 14**, which is a non-woven with low wind permeability and high water storage capacity. The structural matting 12 can be filled with a **substrate 32** and with plant material capable of germination, particularly with seeds, sprouts, spores, or sprout parts. At least the underlay or base layer 14 is equipped to be wind-permeable by making **holes 18, 20** in it.

In this way, Applicant's invention provides a vegetation sheet and a process for the manufacture thereof in which the vegetation sheet has low surface weight, retains the functions of a vegetation sheet and is secure in its position, i.e. insensitive to wind suction even at great roof heights. By rendering at least the underlay permeable to the wind by the application of holes, the surprising effect has been achieved

that no surfaces are offered any longer to wind suction. As a result of the holes, the otherwise closed underside is interrupted or opened so that an immediate pressure equalization occurs between topside and underside, which simulates an effect which otherwise could be found only with conventional heavy substrate formats. With Applicant's invention in which the underlay is provided with holes, the vegetation sheet as a whole no longer provides any resistance to the wind, and therefore the vegetation sheet no longer lifts in the wind.

*Drefahl* fails to disclose or suggest a vegetation sheet wherein at least the underlay is rendered permeable to the wind by the application of holes. Although the Examiner interprets the regions designated with the reference number 26 and FIG. 4 of *Drefahl* as holes, it is respectfully submitted that these regions are not holes. In fact, the reference number 26 in *Drefahl* refers to knotting or chaining points of individual fibers, so-called partial or local regions in which the layer 16 shown in FIG. 3 and/or the layer 24 is firmly connected with the layer 10. Thus, *Drefahl* reads, in column 6, lines 37-50:

"FIG. 4 shows a possible embodiment for the three-dimensional linked fibers or strands of the upper side thrust-absorbing

structure 16 and/or drainage 24. The not separately designated fibers or strands can be three-dimensionally woven, braided, but also be linked in other ways, such as completely irregularly. According to FIG. 4 the linked spatial structure can in local areas 26 be fixedly connected with a thrust-transmitting means 10 in form of a tension-resistant mat or the like. Individual fiber bundles can be associated with the local area 26, which are linked with themselves and if desired also with adjacent fiber bundles. The fibers or strands may be of different non-rotting materials, for example synthetic monofilaments."

Because the application of holes is nowhere disclosed or suggested in *Drefahl*, it is respectfully submitted that claim 1 and the claims that depend thereon are patentable over *Drefahl*

As discussed above, with the holes 18 and 20 shown in Applicant's drawing and as recited in the claims, the specific result is achieved that the vegetation sheet no longer comes loose from a flat or slanted roof due to wind force, because no areas of attack for the wind suction are available any longer. This effect is achieved because the underside, which is otherwise closed, is interrupted, i.e. opened up with the holes, so that an immediate pressure equalization between the upper and lower sides results. If the base layer 14 is provided with holes 18, 20, the vegetation sheet 10 as a whole no longer offers any resistance surface to the wind, therefore lifting of the vegetation body no

longer takes place. In contrast to Applicant's teaching not only is there no disclosure or suggestion of holes in *Drefahl*, there is nothing in *Drefahl* that indicates that this problem was recognized, addressed or solved by *Drefahl's* roof covering.

Moreover, it is respectfully submitted that the comparison of the layers of the vegetation sheet 10 according to Applicant's claims and the slanted roof cover disclosed in *Drefahl* made by the Examiner is incorrect, for the reasons detailed below.

**A) Applicant's Vegetation Sheet 10 is  
Not Equal to Layer S of *Drefahl*.**

According to Applicant's invention as set forth in claim 1 and the claims dependent thereon, the vegetation sheet covers roofs with thin layers of vegetation, i.e. several layers. In *Drefahl*, however, the reference symbol S refers not to a vegetation sheet (as the Examiner assumes), but rather to an individual plant support layer (cf. *Drefahl*: at column 5, line 41).

**B) Applicant's Underlay 14 is  
Not Equal to Layer 16 of *Drefahl*.**

Furthermore, according to Applicant's invention as set forth in claim 1 and the claims dependent thereon, the underlay or base

layer 14 takes the form of a nonwoven fabric having low wind permeability and high water storage capacity. Thus, Applicant's base layer 14 serves to store water. In *Drefahl*, on the other hand, the reference number 16 does not refer to a nonwoven fabric for water storage (as the Examiner assumes), but rather to a three-dimensional structure of fibers and strands that are chained together with one another (cf. *Drefahl*: at column 6, lines 2-5). This three-dimensional structure also does not serve for water storage, but rather serves as a holding projection to prevent slipping of the layer S in the roof incline direction (cf. *Drefahl*: at column 6, lines 2-3 in combination with column 1, lines 48-51).

**C) Applicant's Structural Matting 12 is Not Equal to Layer 24 *Drefahl*.**

Furthermore, Applicant's invention as set forth in claim 1 and the claims dependent thereon includes a structural matting 12. According to Applicant's invention, the structured mat 12 is disposed on the base layer 14 that stores water, and serves to accommodate substrate and roots of the plants. In *Drefahl*, however, the reference number 24 does not refer to a structured mat (as the Examiner assumes), but rather to a drainage layer that serves for drainage, that is, the draining of water (cf.

*Drefahl*: at column 6, lines 28-36). If one were to go along with the Examiner's position, the layer 24 of *Drefahl* would also be disposed underneath what the Examiner incorrectly refers to as the base layer 16 of *Drefahl*, although according to Applicant's invention as set forth in claim 1 and the claims dependent thereon, the structured mat 12 must be disposed on the base layer 14.

Accordingly, it is respectfully submitted that claim 1 and claims 2, 16-25 and 28 which depend directly or indirectly thereon are patentable over *Drefahl*, together with new claims 29 and 30 which are believed in condition for allowance. Applicant would also like to advise the Examiner that *Drefahl* corresponds to EP 0047365 cited in Applicant's November 2, 2001 Information Disclosure Statement and in a search by the European Patent Office. In the opinion of the European Patent Office, this reference is neither harmful to novelty nor makes the object according to the invention obvious. Applicant would also like to advise that a Canadian Patent (No. 2,371,251) has already been issued on the corresponding Canadian application. A copy of the patent certificate along with the patent document is enclosed for the Examiner's consideration. In addition, a European patent (No. 1198167), an Australian patent (No. 766131), and a Hungarian

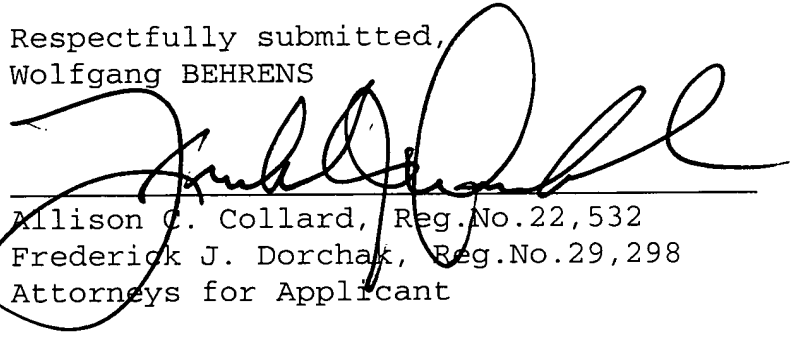


patent (No. 224650) have already been issued in the corresponding applications for this case.

In summary, claims 1, 2, 16-25 and 28 have been amended, claims 26-27 have been canceled, and new claims 29 and 30 have been added. It is believed that no additional claims fee is required because of this Amendment; however, any fee deficiency or arrangement should be charge or credited to Deposit Account No. 03-2468. In view of the foregoing, it is respectfully requested that the claims be allowed and that this case be passed to issue.

Respectfully submitted,  
Wolfgang BEHRENS

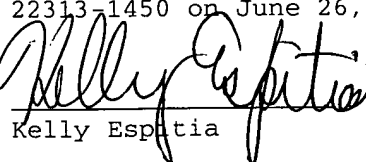
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Enclosure: Canadian Patent No. 2,371,251  
Copy of Petition for one-month extension of time

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on June 26, 2006.



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